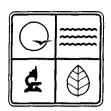
## DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION



## PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 01 2 0 0 6 - 0 0 9

Project Number:

2005-11-003

Owner:

Hudson Rimer, LLC

Owner's Address: 2100 East Shephard Avenue, Kirksville, MO 63501

Installation Name: Davis-Playe-Hudson-Rimer Funeral Home

Installation Address: 2100 East Shephard Avenue, Kirksville, MO 63501

Location Information: Adair County, S22, T62N, R15W

Application for Authority to Construct was made for:

Installation of a B&L Cremation Systems human crematory model N-20 with afterburner. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required.

☐ Standard Conditions (on reverse) are applicable	to this permit			
Standard Conditions (on reverse) and Special applicable to this permit.	-	as attachments	starting on	page 2) ai
JAN 1 3 2006		///	, ,	

EFFECTIVE DATE

#### STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

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Project No.	2005-11-003

#### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Davis-Playe-Hudson-Rimer Funeral Home Adair County, S22, T62N, R15W

#### 1. Process Requirements

- A. Davis-Playe-Hudson-Rimer Funeral Home will burn exclusively noninfectious human bodies or body parts not in containers and non-infectious human bodies or body parts in containers not containing chlorine.
- B. The batch-type incinerator shall have an operable door lockout mechanism that prohibits the charging of waste between burn cycles.
- C. The incinerator shall be equipped with a continuous chart recorder that is able to monitor, display and record the temperature in the final combustion chamber to an accuracy of plus or minus two percent (2%).
- D. The incinerator shall have a minimum combustion efficiency of 99.9% determined from the carbon dioxide (CO<sub>2</sub>) concentration divided by the sum of the carbon monoxide (CO) and CO<sub>2</sub> concentrations.

## 2. Record Keeping Requirements

Davis-Playe-Hudson-Rimer Funeral Home shall maintain an accurate record of the monthly amount and type of waste combusted at this installation. The installation shall use Attachment A or other equivalent form(s) approved by the Air Pollution Control Program for this purpose. Davis-Playe-Hudson-Rimer Funeral Home shall maintain records on-site for the most recent 60 months of all records required by this permit and shall immediately make such records available to any Missouri Department of Natural Resources' personnel upon verbal request.

## 3. Opacity

The incinerator shall have opacity of less than ten percent (10%) at all times.

### 4. Operator Requirements

A. All incinerator operators shall attend a training program equivalent to that developed by the American Society of Mechanical Engineers (ASME), by the incinerator manufacturer or by an individual with more than one (1)

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Project No.	2005-11-003

#### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

year experience in the operation of the incinerator. The training shall include basic combustion theory, operating procedures, monitoring of combustion control parameters and all emergency procedures to be followed if the incinerator should malfunction or exceed operating parameters.

B. The incinerator operator shall have the essential steps necessary for satisfactory operation of the incinerator readily available to him in an easy to read and follow manual.

# REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE SECTION (5) REVIEW

Project Number: 2005-11-003
Installation ID Number: 001-0038
Permit Number:

Davis-Playe-Hudson-Rimer Funeral Home 2100 East Shephard Avenue Kirksville, MO 63501 Complete: October 31, 2005 Reviewed: November 30, 2005

Parent Company: Hudson Rimer, LLC 2100 East Shephard Avenue Kirksville, MO 63501

Adair County, S22, T62N, R15W

#### **REVIEW SUMMARY**

- Davis-Playe-Hudson-Rimer Funeral Home has applied for authority to install a B&L Cremation Systems human crematory model N-20 with afterburner.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment, but in insignificant amounts.
- None of the New Source Performance Standards (NSPS) apply to this installation.
   Subparts Ce and Ec do not apply to this installation as it is not combusting hospital, medical or infectious waste.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. All incinerators are required to obtain a permit from the Air Pollution Control Program as mandated in 10 CSR 10-6.060. Potential emissions are less than de minimis levels.
- This installation is located in Adair County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment. Stack testing was conducted on a similar unit and approved by the Air Pollution Control Program.
- A Basic Operating Permit application is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

#### INSTALLATION DESCRIPTION

Davis-Playe-Hudson-Rimer Funeral Home, located in Kirksville, Missouri, is a crematory that will handle human remains. No permits have been issued to Davis-Playe-Hudson-Rimer Funeral Home from the Air Pollution Control Program. All incinerators are required to obtain an operating permit from the Air Pollution Control Program as mandated in 10 CSR 10-6.065(3)(B). Therefore, this installation will require a basic operating permit.

#### PROJECT DESCRIPTION

Davis-Playe-Hudson-Rimer Funeral Home has applied for authority to construct a B&L Model N-20 Cremation System crematory to be used for the cremation of deceased human remains. This crematory is a multiple chamber design and has a rated capacity of 150 pounds per hour. The B&L Model N-20 crematory is fired solely by natural gas and has a burner rated at 1.6 MMBtu/hr.

The test results for the B & L Systems unit were previously approved by the Air Pollution Control Program and similar units have been permitted. Davis-Playe-Hudson-Rimer Funeral Home also submitted a compliance testing with the application. Compliance testing was performed at a unit in Petersburg, FL on March 5, 2003. Results from that test demonstrated de minimis emissions from that incinerator for particulate matter less than ten microns (PM<sub>10</sub>), volatile organic compounds (VOCs), nitrogen oxides (NO<sub>X</sub>) and carbon monoxide (CO). Sulfur oxide (SO<sub>X</sub>) emissions are also possible from the combustion of the fuel. Due to the nature of pathological waste incineration, hydrogen chloride (HCl) and metal emissions, such as lead, antimony, mercury and cadmium, may be present. However, these emissions should be small enough to be considered insignificant.

#### **EMISSIONS/CONTROLS EVALUATION**

The emission factors for  $PM_{10}$ , VOC, CO,  $NO_X$  and  $SO_X$  used in this review were obtained from the stack test performed on an incinerator in Petersburg, FL on March 5, 2003. No pollution control equipment is in use with this process.

Table 1 gives an emissions summary for the potential emissions from the incinerator. Potential emissions were calculated based on the maximum hourly design rate of the incinerator (150 pounds per hour) operating at 8,760 hours annually. Potential emissions of all criteria pollutants are well below de minimis levels. No existing or actual emissions exist since this is a new installation.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2004 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	N/A	N/A	0.61	N/A
SOx	40.0	N/A	N/A	0.48	N/A
NOx	40.0	N/A	N/A	2.72	N/A
VOC	40.0	N/A	N/A	0.07	N/A
CO	100.0	N/A	N/A	0.012	N/A
HAPs	10.0/25.0	N/A	N/A	N/D	N/A

<sup>\*</sup>N/A = Not Applicable; N/D = Not Determined

#### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. All incinerators are required to obtain a permit from the Air Pollution Control Program as mandated in 10 CSR 10-6.060. Potential emissions are less than de minimis levels.

#### APPLICABLE REQUIREMENTS

Davis-Playe-Hudson-Rimer Funeral Home shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

#### **GENERAL REQUIREMENTS**

- Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110
  - The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- Operating Permits, 10 CSR 10-6.065
- Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170
- Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220
- Restriction of Emission of Odors, 10 CSR 10-3.090

#### STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Fuad Wadud	Date	
Environmental Engineer		

#### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 25, 2005, received October 31, 2005, designating Hudson Rimer, LLC as the owner and operator of the installation.
- Stack Tests report submitted with the application.
- Northeast Regional Office Site Survey, dated November 23, 2005.

## **ATTACHMENT A: Waste Tracking Worksheet**

Davis-Playe-Hudson-Rimer Funeral Home Adair County, S22, T62N, R15W Project Number: 2005-11-003 Installation ID Number: 001-0038 Permit Number:

This sheet covers the period from _		to	
•	(month/year)	_	(month/year)

Copy this sheet as needed.

Date (month/year)	Type of Waste Combusted	Amount of Waste Combusted (pounds)